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NOTES ON MR. THOMAS MEEHAN'S PAPER ON THE PLANTS OF LEWIS AND CLARK'S EXPEDITION ACROSS THE CONTINENT, 1804-06.

BY DR. ELLIOTT COUES.

Many years ago I prepared for publication in these *Proceedings* a paper on the plants of Fort Macon, N. C. It never appeared, because I submitted it to Professor Asa Gray, who told me it was a very good one, but asked me what was the use of printing it. Taking the hint to heart, I have from that day to this curbed any aspirations I may have felt to botanical authorship; and it now behooves me to explain why I presume to have anything to say on a botanical subject. In fact, I do not now write on Lewis and Clark's plants, but solely on the localities where their plants were procured. I do not pretend to any knowledge of botany, but if there is anything I do know, it is exactly where Lewis and Clark were on every day, almost every hour, from start to finish of their famous expedition. Consequently, I can give the precise locality of every specimen which bears a date in the herbarium that Mr. Meehan recently discovered to be still extant, and thus available for the determination of so many of the type specimens of Pursh's species. This discovery seems to me one of the happiest and most important that could have been made, and I doubt not that Mr. Meehan's identifications of these plants, with the assistance of Messrs. Robinson and Greenman, will be justly regarded as a boon to working botanists. I could wish that these writers had effected what I conceive should have been done to set forth the whole matter in its proper light, but since they did not give the requisite precision to Pursh's generally loose and vague, sometimes wholly erroneous, indications of locality, that duty seems to devolve upon me.

In reading Mr. Meehan's paper, I have been little short of astounded at the kind of geography which seems to have answered the purposes of the botanists concerned in this case. Nothing of the sort would satisfy a zoölogist, I am sure. To describe a new species upon a type specimen, assigned to "the banks of the Missouri," or to "the valleys of the Rocky Mountains," would not be tolerated in zoölogy, and should not be endured in botany, when the data

required to pin every dated specimen down to the precise spot where it was collected are ample, and easily accessible in the edition of Lewis and Clark which I brought out in 1893.

Neither praise nor blame attaches to me for any of the botany which appears in that work. As stated in my preface, most of the botanical determinations were those of Mr. F. H. Knowlton, whom I engaged for that purpose, and whose identifications of the plants mentioned or described by Lewis and Clark I accepted without question in any instance. That they should all prove to be correct was not to be expected, and I am now aware of several errors. In the case of the trees, the mistakes have, perhaps, all been detected and corrected in the admirable critical review lately published by Professor C. S. Sargent in *Garden and Forest*, Nos. 465, 466, January 20th and 27, 1897. I could wish that the same searchlight had been turned by Mr. Meehan and his collaborators upon the rest of the botany in my book, and venture to suggest that the whole subject will not be put in its full light or final shape till this has been thoroughly well done.

Great as are the obligations under which Mr. Meehan and his assistants have placed all who are in any way interested in this subject, in the paper which I now proceed to annotate geographically, there remains for some one the agreeable and useful task of reviewing Lewis and Clark's botanical *text* as distinguished from their *specimens*. For it is a curious fact, as I find on studying Mr. Meehan's paper, that the plants of which Lewis and Clark have most to say in their Journal, are not, as a rule, those of which specimens are now extant in their herbarium. Their botany, it may be said, runs in two parallel courses. One of these is represented by the specimens which they *collected*, and which became so many of Pursh's types; the other, by the herbs, shrubs and trees which they *observed*, and noted in their narrative, but did not actually collect. Oftentimes, to be sure, they describe what is in the herbarium, but I should imagine that fifty, if not a hundred species are to be found in the book, no specimens of which are known to be extant. This would appear to me to be a field of research at once alluring and stimulating to some well equipped botanist, and I trust that the work may soon be done once and forever. Lewis and Clark's whole botany could easily be set abreast of the status I have myself been able to confer upon their zoölogy, their ethnology and their geography.

With these remarks, which I trust will be found neither ungracious nor presumptuous, I proceed to review Mr. Meehan's paper from a purely geographical point of view. I take his list precisely as it stands, assuming the identifications to be correct in every instance, and raising no botanical questions whatever. I only follow the zoölogists' rules of nomenclature in writing all specific and subspecific names with a lower case initial letter, all personal names in the genitive case with a single *i*, all trinomial names without the intervention of "var."—a practice which I think most botanists would like, if they could once get used to it.

Anemone canadensis L. (*A. pennsylvanica* L.)

August 17, 1804. Missouri River, close to the mouth of the creek on which the Omahas resided; now Omadi Creek, in Dakota Co., Nebraska. L. & C. there August 13–20, 1804.

Anemone quinquefolia L.

June 15, 1806. Collins' Creek, a branch of the Kooskooskee; now Nahwah River, or Lo Lo fork of Clearwater River, in Shoshone Co., Idaho.

Clematis douglasi Hook. *C. hirsutissima* Pursh, Fl., 384.

No date. Pursh has "plains of the Columbia, May." L. & C. were not on the Columbia itself in May of either year. In May, 1806, they travelled by land approximately up Snake River or Lewis' fork to the mouth of the Kooskooskee, 1st–4th, up the Kooskooskee, 4th–13th, and were at their Camp Chopunnish, on the right bank of the Kooskooskee, nearly opposite but a little below the mouth of Commearp Creek, now known as Lawyer's Cañon Creek, till June 10th. This is a notable locality, where many plants were collected in May and June, 1806. The position is in Shoshone Co., across the river from, and nearly opposite, that of present Kamai or Kamiah, in Nez Percés Co., Idaho.

Delphinium menziesi DC.

April 14, 1806. On the Columbia River, one day's journey by boat below The Dalles, coming up stream.

Dentaria tenella Pursh, Fl. 439.

April 1, 1806. On the Columbia, at the mouth of Quicksand River of L. & C., now called Sandy River. This explains the statement of locality in Mr. Meehan's paper as "Columbia near *quicksands.*"

Erysimum aspersum DC. *E. lanceolatum* Pursh, Fl. 436, nec R. Br.

June 1, 1806. Camp Chopunnish, as above described. This is on the Kooskooskee. But the other specimen which Mr. Meehan adduces from "Rockford Camp, *April 17, 1806*," is from The Dalles of the Columbia. "Rockford" Camp, elsewhere called "Rocky" or "Rock," is a mistake for Rock Fort or Fort Rock Camp, as L. & C. called it when they were at The Dalles. The position is at the mouth of their Quinett Creek, called Wasco Creek on some maps, and now Mill Creek. The position is one of the best known on the Columbia, Oregon side. L. & C. were there October 17, 1805, going down, and April 15–17, 1806, coming up.

Cleome integrifolia T. & G. *C. serrulata* Pursh, Fl. 441.

August 25, 1804. At or very near mouth of Vermilion River, Clay Co., South Dakota. (Whitestone River of L. & C.)

August 29, 1806. At or near mouth of White River, Lyman Co., South Dakota.

Cerastium arvense L. *C. elongatum* Pursh, Fl. 321.

April 22, 1806. On the Columbia, between Des Chutes and John Day Rivers (the Towanahiooks and Le Page's Rivers of L. & C.). "Plains of the Columbia," as given, is therefore quite right.

Malvastrum coccineum Gray. *Cristaria coccinea* Pursh, Fl. 453.

July 20, 1806. "Plains of the Missouri," as given, is a mistake, unless the phrase is used in a very broad sense. On this date the expedition was widely separated. Lewis was high up on Maria's River near its forks in N. W. Montana; Clark was on the Yellowstone, at Camp Cottonwood, above Clark's fork of that river. Clark was busy building boats, and no doubt Lewis collected the plant. The latter botanized that day, as we see by his Journal, p. 1090 of my edition.

Linum lewisi Pursh, Fl. 210.

July 9, 1806, and *July 19, 1806*, for the same specimen; the dates conflict, but "valleys of the Rocky Mountains," as given, can be right for neither date in 1806, if the locality of this particular specimen is meant. On July 9, 1806, Lewis was on Sun River, at or near Fort Shaw, Montana. On July 19, 1806, he was high up on Maria's River; both of these places are out of the mountains. But probably the label was only meant to indicate the general range of the plant, not the exact locality of the specimen. Peren-

nial flax was first noticed by the expedition on the Missouri above the Great Falls "for several days" before July 19, 1805, below, at and above Dearborn's River, in the vicinity, not close, of Helena, Montana. The species then described was identified as *L. perenne* by Mr. F. H. Knowlton, p. 423 of my edition of the work. Some of the country traversed in July, 1805, distinctly includes "valleys of the Rocky Mountains," and I suspect that "1806" should read 1805; also, that July "9" and "19" are merely scribal duplication of a single date.

Claytonia lanceolata Pursh, Fl. 175, t. 3.

June 27, 1806. "Headwaters of the Kooskooskee" is quite right. L. & C. were on the Lo Lo or Northern Nez Percé Trail, along the divide between sources of both N. and S. forks of that river, in central Idaho. It is the same day on which they notice *Erythronium grandiflorum.*

Claytonia perfoliata Don. (In Mr. Meehan's footnote, p. 19.)

March 26, 1806. On the lower Columbia, above Puget's Island and below the Cowlitz River.

April 17, 1806. "Rocky Camp," *i. e.*, The Dalles, as above explained.

Claytonia sibirica L. (In Mr. Meehan's footnote, p. 19.)

April 8, 1806. In camp on the Columbia, in Multnomah Co., Oregon, about 10 miles above Quicksand or Sandy River; vicinity of the place called Cape Horn.

Claytonia linearis Dougl. (In Mr. Meehan's footnote, p. 20.)

June 27, 1806. As above said for *C. lanceolata.*

Lewisia triphylla Rob.

June 27, 1806. Same as the last.

Lewisia rediviva Pursh, Fl. 368.

July 1, 1806. At mouth of Traveller's Rest Creek of L. & C., *i. e.*, of the Lou Lou Fork of the Bitter-root River, some 12 miles south of Missoula, Montana. It should be explained "Clark's River," the assigned location of this plant and some others, always means Bitter-root River, in so far as any plants collected are concerned. Lewis named Clark's River September 6, 1805, when the expedition was in Ross' Hole near the head of the east fork of the Bitter-root River; the party went down this river only as far as the Lou Lou Fork just said, up which they turned sharp and so on over

the Bitter-root range to the sources of the Kooskooskee. They were never on the Clark's River of modern geography, as the great stream of which the Bitter-root is a collateral head does not now bear Clark's name above the junction of the Bitter-root with Hell-gate River. I may add that *Lewisia rediviva*, the racine amère (or bitter root) of the French, is the plant from which the river, its valley, and the mountain range on the west derive their name. An alternative name of the Bitter-root was St. Mary's River, imposed by Father P. J. De Smet in 1842.

Montia parviflora Howell. *Claytonia perfoliata* Pursh, Fl. 176, nec Don.

March 26, 1806. As above said for *Claytonia perfoliata.*
April 17, 1806. As above said for *Claytonia perfoliata.*

Montia sibirica Howell. *Claytonia alsinoides* Pursh, Fl. 175.

April 8, 1806. As above said for *Claytonia sibirica.* There seems to be a duplication of the record of the same specimens of this and preceding species in Mr. Meehan's main text and footnotes.

Pachystima myrsinites Raf. *Ilex? myrsinites* Pursh, Fl. 119.

June 16, 1806. On the Lo-Lo Trail, vicinity of Hungry Creek of L. & C., a branch of the north fork of the south fork of Koos-kooskee River, next east of Collins' Creek.

November 16, 1805. In camp on the Columbia in sight of the ocean, at the landward end of Haley's or Baker's Bay, just inside Chinook Point.

I heartily agree with Mr. Meehan that the name of this genus should be written *Pachystigma.*

Ceanothus velutinus Dougl.

(No date.)

Rhamnus purshiana DC. *R. alnifolia* Pursh, Fl. 166, nec Mchx.

May 29, 1806. Camp Chopunnish.

Rhus canadensis trilobata Gray.

October 1, 1804. In the Little Bend of the Missouri (Lookout Bend of L. & C.), at or near the mouth of Cheyenne River. "First discovered in the neighborhood of the Kancez River," *i. e.*, when L. & C. were about the mouth of Kansas or Kaw River, which was reached June 26, 1804; "now very common" means at the date said, Oct. 1, when they were in the said bend.

Cissus ampelopsis Pers.

September 14, 1806. "Council Bluffs, Missouri," as given, is not any locality, for Council Bluffs, Pottawattamie Co., Iowa, did not exist in 1806, and the Council Bluff of L. & C. was much higher up and on the other side of the river, where now stands Fort Calhoun, Washington Co., Nebraska. L. & C. passed it September 8, 1806, coming rapidly down river; they were, therefore, many miles below when they camped at Leavenworth, Kansas, on the 14th, having come 53 miles that day.

Acer circinatum Pursh, Fl. 267.

October—, 1805. "Great Rapids of the Columbia." The date can be set closer, as L. & C. did not reach the Cascades till October 30, 1805. The vine maple is fully described on p. 834 of my edition, along with *Acer macrophyllum.*

Acer macfophyllum Pursh, Fl. 267.

April 10, 1806. Cascades of the Columbia, on the home voyage. But L. & C. had noticed it in the same region the previous autumn.

Polygala alba Nutt. *P. seneca var. tenuifolia* Pursh, Fl. 750.

August 10, 1806. At or near White Earth River of L. & C., now Muddy River, a branch of the Missouri, at whose mouth is Williston, Montana, near the east boundary of the Fort Buford military reservation. (Not modern White Earth River, which is a different stream, much lower down.)

Amorpha fruticosa angustifolia Pursh, Fl. 466.

August 27, 1806. Great Bend of the Missouri, as stated. This formation is below Pierre, South Dakota, and just above the Crow Creek Agency.

Astragalus missouriensis Nutt.

September 18, year not given. If 1804, one day below the Great Bend of the Missouri, going up; if 1806, on the Missouri from Grand to La Mine River, within the recent State of Missouri; most probably 1804.

Astragalus mortoni Nutt.

September 15, 1804. At or near mouth of White River, Lyman Co., South Dakota.

September 5, 1804. Mouth of the Niobrara River, or within one day above it.

Lupinus argenteus Pursh, Fl. 468.

July 7, 1806. "On the Cokahlaishkit"—an interesting locality. This is the River of the Road to Buffalo of L. & C., now the Big Blackfoot River, a branch of Hellgate River. On the 7th Lewis was on its headwaters, as this is the day he went over Lewis and Clark's Pass of the Continental Divide to the Middle Fork of Dearborn's River, thus passing from Deer Lodge County to Lewis and Clark County, Montana.

Lupinus sericeus Pursh, Fl. 468.

June 5, 1806. Camp Chopunnish on the Kooskooskee.

Oxytropis nana Nutt. *var. O. argentata* Pursh, Fl. 473.

July —, 1806. "Near the head of Clark's River" means the Bitter-root River at the mouth of its Lou Lou branch, the Traveller's Rest Creek of L. & C., and the date is July 1st or 2d, when Lewis was botanizing as the Journal shows, p. 1065 of my edition. See *Trifolium microcephalum*, below.

Petalostemon violaceus Mchx. Pursh, Fl. 461.

July 22, 1806. "On the Missouri;" impossible. At this date Lewis was on Cut-bank Creek, one of the main headwaters of Maria's River, in N. W. Montana near the foot of the Rocky Mountains, and Clark was on the Yellowstone. No doubt Lewis collected the specimen.

September 2d, year not given; no locality indicated. If 1804, at Bonhomme, South Dakota; if 1805, on Fish Creek, a tributary of Salmon River, Idaho; if 1806, at or near James' River, South Dakota. The first and third of these are practically the same locality, as the expedition crossed the years 1804 and 1806 in passing Bonhomme Island on September 1st. I presume the year is 1804, for, in the case of the related *Psoralea argophylla*, collected October 17, 1804, and in the present case of *Petalostemon violaceus*, Lewis makes similar remarks on the use of these plants by the Indians in decoctions for wounds.

Psoralea argophylla Pursh, Fl. 475.

October 17, 1804. On the Missouri, very near the mouth of Cannonball River, North Dakota.

Psoralea tenuiflora Pursh, Fl. 475.

September 21, 1804. Great Bend of the Missouri, as stated.

Trifolium megacephalum Nutt. *Lupinaster macrocephalus* Pursh, Fl. 479, t. 23.

April 17, 1806. Rock Fort Camp (not "Rockford") at The Dalles of the Columbia.

Trifolium microcephalum Pursh, Fl. 478.

July 1, 1806. Same spot as *Oxytropis nana*, above; here called "Valley of Clark's River." The Journal, p. 1066 of my edition, speaks of "two species" of clover in this valley, one with a very narrow, small leaf and a pale red flower, the other with a white flower, and nearly as luxuriant in its growth as our red clover.

Amelanchier alnifolia Nutt. *Pyrus sanguinea* Pursh, Fl. 340, in part.

April 15, 1806. Rock Fort Camp. The species is also recorded repeatedly by L. & C. in widely separated localities; see my edition, pp. 277, 282, 419, 828.

Cratægus douglasi Lindl. *C. glandulosus* Pursh, Fl. 337.

April 29 or 19, 1806; for dates conflict in main text and its footnote. If 19th, the place is Celilo Falls of the Columbia; if 29th, mouth of Wallawalla River, on the Columbia, site of *old* Fort Wallawalla and of modern Wallula. It is also elsewhere reported, by L. & C. on the Columbia, much lower down. Mr. Meehan refers to the Journal of January 20, 1806, but there is no allusion to the plant at that date. He evidently means the description of No. 12 of the botanical list drawn up at Fort Clatsop; this is found on p. 826 of my edition, but there are no dates in this list. I am sorry to find that Mr. Knowlton has discredited the identification, supposing No. 12 to be *Pyrus rivularis.* It is correctly given, however, on p. 908, March 25, 1806, when the expedition was in the vicinity of Puget's Island. Again, on June 10, 1806 (p. 1041 of my edition), when L. & C. left Camp Chopunnish, they speak of the "purple haw," and Mr. Knowlton there bracketed *Viburnum pauciflorum*— no doubt in error, as pointed out by Professor C. S. Sargent in his admirable paper on the trees of the expedition in *Garden and Forest*, No. 466, January 27, 1897, p. 39.

Geum triflorum Pursh. *G. cilatum* Pursh, Fl. 352.

June 12, 1806. Camp on Quamash Flats, the modern Weippe or Oyipe Prairie in Shoshone Co., Idaho, on the Lo Lo Trail near the west base of the mountains.

Pyrus sambucifolia Cham. and Schl. (?).

June 27, 1806. On the Lo Lo Trail, same place as *Claytonia lanceolata.*

Potentilla anserina L.

March 13, 1806. Fort Clatsop, L. & C. winter quarters of 1805–06, a short distance up their Netul, now commonly called Lewis and Clark's River, a small stream which falls into the Columbia near its mouth on the Oregon side.

Potentilla fruticosa L. Pursh, Fl. 355.

July 5, 1806. "Prairie of the Knobs," as given, is a remakable place on the Cokahlaishkit or Big Blackfoot River, one day west of Lewis and Clark's Pass, in Deer Lodge County, Montana. It is also called Blackfoot Prairie and Stevens' Prairie, but Lewis did not reach it till July 6th.

Prunus demissa Nutt.

August 10, 1806. "A cherry found near the beaver bents on the Missouri." I do not know what these are, but the place meant is present Beaver Creek, in Flannery Co., North Dakota, almost on the border of Mountraille Co., about where *present* White Earth River (not the one so named by L. & C.) falls into the left bank of the Missouri. The Journal of this date, p. 1173 of my edition, has this note: "In the low grounds of the river Captain Clark found to-day a species of cherry which he had never seen before, and which seems peculiar to this small district of country, though even here it is not very abundant." No identification was offered in my work, as I had no hint of what the species was, and I am particularly pleased now to find it out.

Prunus virginiana L.

May 29, 1806. Camp Chopunnish.

Prunus?

June 27, 1806. On the Lo Lo Trail, east of Lo Lo Fork (Collins' Creek), and west of the main range of the Bitter-root Mountains, Shoshone Co., Idaho.

Prunus?

May 7, 1806. Main Kooskooskee River above Colter's or Potlatch Creek, and below the mouth of the Chopunnish or North Fork.

Prunus sp. (*P. pumila* of Mr. Meehan's footnote.)

May 29, 1806. Camp Chopunnish.

Purshia tridentata DC. *Tigarea tridentata* Pursh, Fl. 333, t. 15.

July 6, 1806. Prairie of the Knobs, as above described for *Potentilla fruticosa.*

Rosa woodsi Lindl.

September 5, 1804. On the Missouri, immediately above the Niobrara.

October 18, 1804. On the Missouri, immediately above the Cannonball, not "at or near Fort Mandan" as Mr. Meehan states, but much below that site, which was not reached till the 26th. Mr. Meehan cites May 18, 1806, Camp Chopunnish, as the date on which L. & C. "saw the wild roses in bloom." I find no allusion to roses in the Journal of that day, but on June 10, 1806, when L. & C. had just left Camp Chopunnish, they "observed two species of wild rose, both of a damask-red color." These Mr. Knowlton supposed to be *R. nutkana* and *R. sayi?*, which names were accordingly bracketed in my edition, p. 1041.

Rubus nutkanus velutinus Brew.

April 15, 1806. Rock Fort Camp, on the Columbia.

Rubus spectabilis Pursh, Fl. 348, t. 16.

March 27, 1806. Lower Columbia River, above Kalama River, in the vicinity of Deer Island. The plant is not mentioned in the Journal of this date, but was discovered by L. & C. in this vicinity, near the mouth of the Multomah or Willamette, November 4, 1805; see my edition, p. 695.

Spiræa discolor Pursh, Fl. 342.

May 29, 1806. Camp Chopunnish.

Philadelphus lewisi Pursh, Fl. 329.

May 6, 1806. Main Kooskooskee River, vicinity of Colter's or Potlatch Creek, below mouth of the North Fork.

July 4, 1806. "On the waters of Clark's River." This means Hellgate River, between Missoula, Montana, and the mouth of Big Blackfoot River, in Missoula Co., Montana.

Ribes aureum Pursh, Fl. 164.

July 29, 1805. Three Forks of the Missouri, junction of Jefferson, Madison and Gallatin Rivers. Both currants and gooseberries are mentioned at this date, and one species, which Mr. Knowlton identified from the description as *R. oxyacanthoides*, is described at length; fruit large, jet black with crimson pulp, extremely acid, etc. But the original mention of *R. aureum* is earlier in the work, p. 419, July 17, 1805, when L. & C. were at Pine or Half Breed Island and Rapids, a little below the mouth of Dearborn River.

It is here particularly described, along with two other kinds of currants which Mr. Knowlton identified as *R. hudsonianum* and *R. viscosissimum*, and two species of gooseberries which he doubtfully referred to *R. rotundifolium* and *R. oxyacanthoides*.

April 16, 1806. Rock Fort Camp, on the Columbia.

Ribes menziesi Pursh, Fl. 372.

April 8, 1806. Columbia River, at the place above said for *Montia* or *Claytonia sibirica*.

Ribes viscosissimum Pursh, Fl. 163.

June 16, 1806. "Heights of the Rocky Mountains." This means on the Lo Lo Trail over the Bitter-root Mountains, at the same place that *Pachystigma myrsinites* was procured.

Clarkia pulchella Pursh, Fl. 260, t. 11.

June 1, 1806. "Kooskooskee and Clark's River." It is impossible for a specimen to have been collected on those two rivers on the same day; at the date said, L. & C. were in Camp Chopunnish on the Kooskooskee. See *Erysimum asperum*, above.

Œnothera cæspitosa Nutt. (Pursh, Fl. 735.) *O. scapigera* Pursh, Fl. 263.

July 17, 1806. "Near the falls of the Missouri" is correct. Lewis that day went from the Great Falls over to Teton or Tansy River.

Œnothera heterantha Nutt.

June 14, 1806. "Squamash flats." This means the Quamash Flats on Weippe or Oyipe Prairie; same spot where *Geum triflorum* was taken on the 12th.

Sedum stenopetalum Pursh, Fl. 324.

June 15 and July 1, 1806. On the Lo Lo Trail; at first date immediately east of the Quamash Flats, at the other date at the mouth of Traveller's Rest Creek in the Bitter-root Valley.

Label only of a supposed Angelica.

September 3, 1805. On Fish Creek, the north fork of Salmon River, in Lemhi Co., Idaho.

June 25, 1806. On the Lo Lo Trail in the Bitter-root Mountains, on Hungry Creek.

Peucedanum ?

April 14, 1806. On the Columbia, at or near Sepulcher Rock, which is an aboriginal burying place about 3 miles below Cataract or Klikitat River.

Peucedanum leiocarpum Nutt. *Smyrnium nudicaule* Pursh, Fl. 196.

April 15, 1806. Rock Fort Camp, at The Dalles of the Columbia.

Peucedanum simplex Nutt. (or *P. triternatum* Pursh).

May 6, 1806. On the main Kooskooskee River; same place as the supposed *Philadelphus lewisi*, above.

Peucedanum utriculatum Nutt.? *Phellandrium aquaticum* Pursh, Fl. 195.

June 10, 1806. Near Camp Chopunnish, which L. & C. left that day, travelling north down and nearly parallel with the Kooskooskee, past Collins' Creek to the Quamash Flats.

One or another of the foregoing species of *Peucedanum* is the plant called *cows, cowas* or *cowish*, and particularly described at no one of the above dates, but at May 9, 1806, p. 999 of my edition, where I call it *P. cous.* It appears as "cow-weed" in the McVickar edition of the work.

Cymopterus campestris Nutt.? (Mr. Meehan's suggested identification, in a footnote).

April 29, 1806. On the Columbia at the mouth of Wallawalla River. This is the shapelell or shappalell of L. & C. There is no mention of it at this date in the Journal, but the name appears on April 14, 1806, p. 949 of my edition.

(Label only).

April 25, 1806. On the Columbia, approaching Umatilla River. At date of May 16, 1806, p. 1014 of my edition, is mentioned "a kind of fennel, called by the Shoshonees yearhah, resembling anniseed." This is supposed to be yamp, *Carum gairdneri* or a related species. See also p. 552.

(Two unidentified Umbellifers).

April 14, 15, 1806. Below and at Rock Fort Camp on the Columbia.

Cornus canadensis L.

June 16, 1806. On the Lo Lo Trail, Collins' Creek to Hungry Creek, with *Pachystigma myrsinites, Ribes viscosissimum* and *Lonicera ciliosa.*

Lonicera ciliosa Poir. *Caprifolium ciliosum* Pursh, Fl. 160.

June 5 and June 16, 1805. Camp Chopunnish and the Lo Lo Trail. This record is quite right; but in enumerating the same species among plants of Fort Clatsop, p. 835 of my edition, I under-

stand L. & C. to have been mistaken. While at Quamash Flats, June 10, 1806, L. & C. speak of "the honeysuckle bearing a white berry," which Mr. Knowlton supposed to be *Symphoricarpos racemosus*, and so I used the name on p. 1041 of my edition.

Lonicera involucrata Banks.

September 2, 1805. "On the waters of the Columbia" does not mean the river itself of that name, but its general watershed. On this date L. & C. were on their Fish Creek, which is the north fork of Salmon River, in Lemhi Co., Idaho.

July 7, 1806. Sources of Big Blackfoot River, near Lewis and Clark's Pass, in Deer Lodge Co., Montana.

Achillea millefolium L. *A. tomentosa* Pursh, Fl. 563, nec Willd.

May 20, 1806. Camp Chopunnish.

Aplopappus spinulosus DC. *Amellus spinulosus* Pursh, Fl. 564.

September 15, 1804. On the Missouri, passing mouth of White River, Lyman Co., South Dakota.

(What has become of the big H with which the name of this genus ought to begin? Botanists should not tolerate such a Cockneyism as "*Aplopappus.*" No one can aspire to grammatical propriety without an aspirate.)

Aplopappus sp.

October —, 1805. L. & C. reached the Columbia itself on the 16th, and were on it the rest of the month; prior to that date in October, 1805, they were on the Kooskooskee and Snake Rivers.

Artemisia cana Pursh, Fl. 521.

October 1, 1804. In Lookout Bend of the Missouri of L. & C., now called the Little Bend, passing mouth of Big Cheyenne River.

October 2, 1804. A few miles further up the Missouri—practically the same locality as the last.

Artemisia dracunculoides Pursh. *A. dracunculus* Pursh, Fl. 521, nec L.

September 15, 1804. On the Missouri, passing mouth of White River, Lyman Co., South Dakota.

Artemisia frigida Willd. Pursh, Fl. 521.

September 2, 1804. On the Missouri at Bonhomme Island, Bonhomme, South Dakota.

October 3, 1804. On the Missouri, two days above Big Cheyenne River, nearing Little Cheyenne River.

Artemisia longifolia Nutt. *A. integrifolia* Pursh, Fl. 520.

October 1 and 3, 1804. See preceding species of this genus. L. and C. do not speak of sage brush in their Journal at any of the above dates. On April 14, 1805, when they were on the Missouri between the Little Missouri and present White Earth Rivers, they speak of aromatic plants "resembling the sage, hyssop, wormwood," etc., p. 273 of my edition.

Artemisia ludoviciana Nutt. ?

April 10, 1806. "Rockford Camp" as given is impossible, as L. & C. were not at Rock Fort Camp till April 15th that year. On the 10th they had reached the head of tide-water of the Columbia, vicinity of Beacon Rock, and were drawing their boats up the Cascades from Brant Island.

Aster oblongifolius Nutt.

September 21, 1804. Big Bend of the Missouri, as correctly stated.

Aster oreganus Nutt.

October —, 1805. "Lewis River." If on Lewis' River itself the date was October 10–16th, while L. & C. were descending Snake or Lewis' River from the mouth of the Kooskooskee to the Columbia itself.

"Bidens-like."

October —, 1805. "Lewis River," as last said.

Balsamorrhiza sagittata Nutt. *Buphthalmum sagittatum* Pursh, Fl. 564.

April 14, 1806. On the Columbia, one day below Rock Fort Camp.

July 7, 1806. Lewis and Clark's Pass of the Continental Divide, near head of Big Blackfoot River, in Dear Lodge Co., Montana.

Bigelowia graveolens Gray. *Chrysocoma dracunculoides* Pursh, Fl. 517.

May 6, 1806. Main Kooskooskee River, below Camp Chopunnish.

October 2, 1804. Just above Little or Lookout Bend of the Missouri; see *Artemisia cana* above.

Bigelowia graveolens albicaulis Gray. *Chrysocoma nauseosa* Pall. in herb. Pursh, Fl. 517.

October 15, 1805. "On the Columbia River" as given is not quite right, as that day L. & C. were descending Snake River, and did not reach its confluence with the Columbia till the 16th.

Cnicus edulis Gray.

March 13, 1806. Fort Clatsop, as correctly given. Mr. Meehan quotes the Journal of January 20th for this species, though nothing is said of it on that date in the Journal as printed. The passage cited by Mr. Meehan occurs in the general account of the botany of Fort Clatsop, where *Cnicus edulis* is No. 1 of the list, p. 821 of my edition; "shanatanque" of the natives. But it is quite true that the botanical matter begins in Clark's Codex P, p. 89 of the manuscript, at date of January 20, 1806.

Eriophyllum cæspitosum Dougl. *Actinella lanata* Pursh, Fl. 560.

June 6, 1806. Camp Chopunnish.

Gaillardia aristata Pursh, Fl. 573.

July 7, 1806. As above, under *Balsamorrhiza sagittata.*

Grindelia squarrosa Dunal. *Donia squarrosa* Pursh, Fl. 559.

August 17, 1804. Camp near the Omaha village on the Missouri, nearly opposite mouth of Omadi Creek.

Gutierrezia euthamiæ T. & G. *Solidago sarothræ* Pursh, Fl. 540.

September 19 and 21, 1804 (one of these dates misprinted "1805"). Approaching and on the Great Bend of the Missouri.

Liatris pycnostachya Mchx.

September 15, 1804. On the Missouri, passing White River.

Liatris scariosa Willd.

September 12, 1804. Three days below White River, passing Shannon's or Washinanpi Creek, vicinity of Rosebud Landing, Gregory Co., South Dakota.

Matricaria discoidea DC. *Santolina suaveolens* Pursh, Fl. 520.

June 9, 1806. Camp Chopunnish.

Microseris macrochæta Gr.

April 17, 1806, "Rock" Camp, as here given, is the *Rock Fort* Camp already often mentioned.

Solidago rigida L.

September 13, 1804. Two days below White River, on the Missouri. Composite?

May 27, 1806. Camp Chopunnish.

Arctostaphylos uva-ursi Spreng.

No date. No. 33, Fort Mandan. This fort was occupied November, 1804–April, 1805. Mr. Meehan says, in speaking of the name

"sacacommis" used for this plant by "Engagés," that it is not clear who "Engagés" were; but an *engagé* was any hired man of a fur-trading company; the word means precisely the same as *employé* or employee. Mr. Meehan states that "Professor Knowlton in the notes to Coues' edition of the travels, suggests the name *Arctostaphylos pungens* for this." But I cannot find *A. pungens* in my book. Sacacommis is given in four places, p. 139, p. 674, p. 729, p. 827, in each instance correctly identified as the bear-berry, *A. ura-ursi*. This is one of the few botanical identifications that I made myself, as I happened to know the plant very well.

Arbutus menziesi Pursh, Fl. 282.

November 1, 1805. Cascades of the Columbia, a little above head of tide-water.

Gaultheria shallon Pursh, Fl. 283.

June 20, 1806. "On the coast of the Pacific Ocean," as given, is impossible. At that date L. &. C. were on the Lo Lo Trail in northern Idaho. I suppose this date to be a misprint for some day in *January*, 1806, when L. & C. were at Fort Clatsop, and repeatedly mention the salal, shallun or shellwell with particularity; see my edition, p. 731, p. 739, p. 791, p. 798, p. 825. The form of the name shallum, adduced by Mr. Meehan, does not occur in my work.

Vaccinium myrtillus L. (*V. myrtilloides* L. in Mr. Meehan's footnote.)

June 20, 1806. "Fort Clatsop," as given, is impossible; see under *Gaultheria shallon.*

Vaccinium ovatum Pursh, Fl. 290.

June 27, 1806. "Fort Clatsop," as given, is impossible; see under *Gaultheria shallon.*

While on the question of *Vaccinium*, I should much like to know what botanists can make of the "cranberry of the low and viny kind" mentioned by L. and C. in the Fort Clatsop list of plants, No. 11, p. 826 of my edition, and considered by Mr. Knowlton to be *V. macrocarpon, ibid.*

Dodecatheon meadia L.

April 16, 1806. Rock Fort Camp, on the Columbia. In his footnote Mr. Meehan says: "There might have been a specimen collected on the march up the Missouri in 1804, as in the Journal under date April 17th, it is noted that 'violets, doves foot and cow-

slips are in bloom,' the *Dodecatheon* being probably referred to as cowslips." But L. and C. were not on the voyage up the Missouri on April 14, 1804; they did not start till May 14, 1804, and at date of April 17, 1804, there is not a word about cowslips in the Journal. What Mr. Meehan means is a passage in the meteorological register kept by L. and C. at Camp Dubois, at the mouth of Wood River, which empties into the Mississippi in Illinois, till the date of their departure. The correct quotation for April 17, 1804, is: "the violet, dove's-foot, and cowslip are in blow," p. 1283 of my edition. Mr. Meehan's other citation of "cowslip," at date of April 9, 1806, also found in the meteorological register, p. 1295 of my edition, is correctly referred to the Columbia River.

Frasera thyrsiflora Hook. *Swertia fastigiata* Pursh, Fl. 101.

June 14, 1806. "Squamash flats," as given, means Quamash flats, on the Lo Lo Trail, west of the Bitter-root Mountains. So also does Pursh's "on the Missouri Flats near the Rocky Mountains," which reads curiously to one who knows the geography of the route. It is wrong by several hundred miles—yet not so far out of the way as some others of his that I could instance.

Colloma linearis Nutt.

April 17, 1806. "Rockford"=Rock Fort Camp, on the Columbia.

Gilia aggregata Spreng. *Cantua aggregata* Pursh, Fl. 147.

June 26, 1806. Hungry Creek, as given, is correct; a small tributary of the north fork of the south fork of the Kooskooskee, east of Collins' Creek, in the mountains of the Lo Lo Trail. Pursh's "banks of the Mississippi," as cited in Mr. Meehan's paper, is more than a thousand miles out of the way; and if this be an inadvertence for "banks of the Missouri," still it is wrong by several hundred miles.

Polemonium cæruleum L.

June 27, 1806. One day further east than the last, on the Lo Lo Trail over the Bitter-root Mountains.

Phacelia circinata Jacq. *P. heterophylla* Pursh, Fl. 140. *P. scabiosæfolia* Pursh, MS. (type).

June 9, 1806. Camp Chopunnish, the day before L. and C. left it. Mr. Meehan's footnote is erroneous in citing "on the Kooskooskee, *August* 9, 1806"—I presume merely by a slip of the pen. On August 9, 1806, L. and C. were on the Missouri below the mouth of the Yellowstone.

Phacelia menziesi Torr. *Hydrophyllum lineare* Pursh, Fl. 134.

April 17, 1806. Rocky=Rock Fort Camp, on the Columbia—not "on the banks of the Missouri," as Pursh has it.

Plagiobothrys tenellus Gray.

April 17, 1806. As the last.

Krynitskia sp.?

April 17, 1806. As the last.

Nicotiana quadrivalvis Pursh, Fl. 141.

October 12, 1804. "The Ricara's town" said was one of the 3 Arikara villages which were flourishing in 1804 within 8 miles above the mouth of Wetarhoo River of L. and C., now Grand River, South Dakota—one of them on Ashley Island, the other two a little higher up, on the right bank of the Missouri. Pursh says of *N. quadrivalvis*, "the tobacco prepared from it is excellent." That makes me believe he never smoked the nasty stuff.

Mimulus luteus L. Pursh, Fl. 426.

July 4, 1806. "On the waters of Clark's River" means Hellgate River, close by Missoula, Montana.

Orthocarpus tenuifolius Benth. *Bartsia tenuifolia* Pursh, Fl. 429.

July 1, 1806. "Valley of Clark's River" means the mouth of Traveller's Rest Creek, the Lou Lou Fork of the Bitter-root River.

Pedicularis grœnlandica Retz. Pursh, Fl. 426.

July 6, 1806. "On the low plains on the heath of Clark's River" means Prairie of the Knobs on Big Blackfoot River.

P. scopulorum Gray? *P. elata* Pursh, Fl. 425, nec Willd.

July 6, 1806. As the last. Nothing is simpler than the geographical explanation of the apparent discrepancies in this identification and the three preceding ones. The Bitter-root, the Hellgate and the Big Blackfoot are three of the sources of Clark's River, coming together in the vicinity of Missoula. July 1st to 6th Lewis went down the Bitter-root to Missoula, up the Hellgate to the Big Blackfoot, and up the latter to within one day's march of Lewis and Clark's Pass of the Continental Divide. As I have said before, neither Lewis nor Clark ever saw Clark's River as understood by modern geographers.

Pentstemon diffusus Dougl.

May 20, 1806. Camp Chopunnish.

Synthyris reniformis major Hook.

June 26, 1806. Hungry Creek, as said.

Salvia lanceolata Willd. *S. trichostemmoides* Pursh, Fl. 19.

September 21, 1804. Big Bend of the Missouri, as said.

Scutellaria angustifolia Pursh, Fl. 412.

June 5, 1806. Camp Chopunnish.

Oxybaphus nyctagineus Sweet. *Allionia ovata* Pursh, Fl. 97.

September 1, 1804. At or near Bonhomme Island, South Dakota.

Atriplex canescens James. *Calligonum canescens* Pursh, Fl. 370.

September 21, 1804. Big Bend of the Missouri, as said.

Atriplex nuttalli Wats.

July 20, 1806. "High plains of Missouri" is doubly impossible: there are no high plains in Missouri, and if high plains of the Missouri River be meant, it is wrong; for at this date Lewis was high up on Maria's River, and Clark was on the Yellowstone.

Sarcobatus maculatus Torr.[1]

July 20, 1806. As last said. This is the "pulpy leaved thorn" of L. & C., p. 325, p. 462, and p. 463, of my edition, there correctly identified by Mr. Knowlton as *S. vermicularis.*

Polygonum bistortoides Pursh, Fl. 271.

June 12, 1806. Quamash flats, as said, but by no means "on the banks of the Missouri," as Pursh says, for there are none such. Among the several Quamash flats described and mapped by L. and C. the one where they were on June 12, 1806, is the Weippe or Oyipe Prairie near the west end of the Lo Lo Trail, in Shoshone Co., Idaho.

Elæagnus argentea Pursh, Fl. 114.

July 6, 1806. Prairie of the Knobs, on Big Blackfoot River.

Shepherdia argentea Nutt. *Hippophæ argentea* Pursh, Fl. 115.

A. No. 39, no date. But date is easily supplied, if the specimen was "obtained at the mouth of the River *Quicourre;*" for this is a L. and C. way of spelling L'Eau qui Court, French name of Running Water or Niobrara River, where L. and C. camped September 4, 1804; they passed it again September 6, 1806, but that the former date is the one is shown by the fact they speak of sending the speci-

[1] *Sarcobatus maculatus* Torr., in my paper, was a misprint for *Sarcobatus vermicularis* Torr. (J. M.)

men in a box to Captain Stoddard at St. Louis, and this box started from Fort Mandan April 7, 1805.

Euphorbia heterophylla L. *E. cyathophora* Pursh, Fl. 605, nec Willd.

October 4, 1804. On the Missouri, above Big Cheyenne River, and nearing Little Cheyenne River.

Euphorbia marginata Pursh, Fl. 607.

July 28, 1806. "On the Yellowstone River, M. Lewis." This is impossible, because Lewis was never on the Yellowstone, though he passed its mouth twice; and at the date said he was on the Missouri above Maria's River, at the Cracon du Nez or Grog Spring, in the vicinity of Fort Benton. Clark was on the Yellowstone at this date, below the mouth of the Bighorn, and above the mouth of Tongue River.

Maclura aurantiaca.

(No label.)

Betula ? *i. e.* **Alnus rubra.**

March 26, 1806. Lower Columbia River, between Puget's Island and Cowlitz River. I am pleased to find Mr. Meehan confirming the identification of the black alder several times mentioned by L. & C. and given in my edition as *Alnus rubra*, p. 698, p. 724, p. 749, p. 833, p. 911.

Quercus garryana Dougl.

March 26, 1806. Same place as last said.

Quercus macrocarpa depressa Englm.

September 5, 1804. From the Niobrara River, where L. & C. camped on the 4th (not on the 5th), upward. The "White Point" Creek which Mr. Meehan cites in this connection is the White Paint Creek of L. and C., now known as Bazile Creek, which falls into the Missouri next below the Niobrara and on the same side. The date on which L. and C. described this tree particularly is the 16th, not 15th, as cited by Mr. Meehan; they were then camped a short distance above White River, one mile above their Corvus Creek, now known as American Crow Creek. This oak is the one malidentified by Mr. Knowlton in my edition, p. 119, as *Q. undulata* var. *wrighti*, and first referred to *Q. macrocarpa* by Prof. Sargent, *Garden and Forest*, No. 465, January 20, 1897, p. 28—a masterly criticism of the way all the L. & C. trees were handled in my work, and one for which I am profoundly grateful to its distinguished author.

Populus monilifera Ait. *P. angulata* Pursh, Fl. 619, nec Willd.

August —, 1806. Somewhere on the Missouri; location not determinable.

Populus trichocarpa T. and G.

June —, *1806.* "Cotton tree of the Columbia." But L. & C. were not on the Columbia in any part of June, 1806, the whole of which month they spent either at Camp Chopunnish or on the Lo Lo Trail in Idaho. While they were low down on the Columbia they mentioned this species twice, March 25 and 27, 1806; see my edition, p. 908 and p. 911, where *P. trichocarpa* is correctly given.

Calypso borealis Salisb. Pursh, Fl. 593.

June 16, 1806. Hungry Creek, as said.

Iris missouriensis Nutt. *I. sibirica* Pursh, Fl. 30, nec Wlld.

July 5, 1806. Prairie of the Knobs, on the Big Blackfoot River.

Allium sp. (Perhaps in part *A. angulosum* Pursh, Fl. 223. It may be *A. reticulatum.*)

April 30, 1806. Neither of the three botanists concerned in this case seem to know what sort of an onion it is. All I know about it is, that if it was collected at the date said, it was not collected "on the waters of the Kooskooskee," as said; for on April 30, 1806, L. & C. were on the Wallawalla in the vicinity of Touchet River.

Brodiæa douglasi Wats. *B. grandiflora* Pursh, Fl. 223, nec Smith.

April 20, 1806. Great Falls of the Columbia, near Celilo. Mr. Meehan speaks of this as the "hyacinth of Colorado Plains," by slip of the pen for Columbia Plains. The passage of L. & C. which he cites as from the Journal of April 16th, occurs in the meteorological register of that date, p. 1295 of my edition. Mr. Knowlton imagined this hyacinth, as mentioned by L. & C. on April 16th, to be quamash, and so it stands *Camassia esculenta* on p. 952 of my edition, by egregious error.

Calochortus elegans Pursh, Fl. 240.

May 17, 1806. Camp Chopunnish.

Camassia esculenta Lindl. *Phalangium quamash* Pursh, Fl. 226.

June 23, 1806. Quamash flats on the Lo Lo Trail. Pursh is far out with his "upper part of the Missouri" as the location of this specimen. In citing the Journal of June 29, 1806, for the blooming of this species, Mr. Meehan means the meteorological register of that date, p. 1297 of my edition. It should be particularly noted

that the Quamash flats of L. & C. of June 29th are not those of June 23d. The latter are on Weippe Prairie, near the west end of the Lo Lo Trail; the former are near the east end of that trail, on Quamash or Glade Creek, also called Prairie and Takon Creek. Both are in Idaho, but over 100 miles apart.

I do not understand why Mr. Meehan, or Messrs. Robinson and Greenman, should use *Camassia esculenta* as the technical name of this plant. The first specific name being *quamash* Pursh, 1814, and the first tenable generic name being *Quamasia* Rafinesque, February, 1818, the coupling of these as *Quamasia quamash* is the required name of the plant, as first given by Mr. Coville, Pr. Biol. Soc. Wash. XI, April 21, 1897, p. 64.

Erythronium grandiflorum Pursh, Fl. 231.

June 5, 1806. Camp Chopunnish.

Erythronium grandiflorum parviflorum Wats.

May 8, 1806. Kooskooskee River, below Camp Chopunnish, near mouth of the north fork of the river.

Fritillaria lanceolata Pursh, Fl. 230.

April 10, 1806. Brant Island in the Columbia, at foot of the Cascades, near head of tide water.

Fritillaria pudica Spreng. *Lilium? pudicum* Pursh, Fl. 228, t. 8.

May 8, 1806. Kooskooskee River, below Camp Chopunnish.

Trillium ovatum Pursh, Fl. 245.

April 10, 1806. Same place as *Fritillaria lanceolata.*

Trillium petiolatum Pursh. Fl. 244.

June 15, 1806. On the Lo Lo Trail, on or near Collins' Creek.

Veratrum viride Ait. or *V. californicum* Dur.

June 25, 1806. On the Lo Lo Trail, on or near Hungry Creek.

Xerophyllum tenax Nutt. *Helonias tenax* Pursh, Fl. 243.

June 15, 1806. Same place as *Trillium petiolatum.*

Zygadenus elegans Pursh, Fl. 241.

July 7, 1806. Head of Cokalahishkit or Big Blackfoot River, near Lewis and Clark's Pass.

Aira brevifolia Pursh, Fl. 76 (or *Poa tenuifolia* Nutt.).

June 10, 1806. At or near Camp Chopunnish, which L. & C. left this day.

Hordeum jubatum Pursh, Fl. 89.

March 13, 1806. Fort Clatsop.

July 12, 1806. White Bear Islands of L. & C., still so called, in the Missouri near mouth of Sun River, above the Great Falls, adjoining city of Great Falls, Cascade Co., Montana.

Festuca ovina L. var.

June 10, 1806. See under *Aira brevifolia.*

Agropyron divergens Nees. *Festuca spicata* Pursh, Fl. 83.

June 10, 1806. As last.

Koeleria cristata Pers. Pursh, Fl. 85.

June 10, 1806. As last. All the grasses of this date reported as from "Plains of the Columbia," where none of them were collected.

Stipa spartea Trin. *S. juncea* Pursh, Fl. 72, nec L. (*S. comata* Trin., fide Scribner).

July 8, 1806. East base of Continental Divide, in Lewis and Clark Co., Montana, about headwaters of north fork of Dearborn River and of Sun River.

Zizania aquatica L.

No. 59. *September 8th,* year not said. If 1804, on the Missouri near Fort Randall, South Dakota. If 1805, in the Bitter-root Valley, Montana. If 1806, on the lower Missouri between the Council Bluff and the mouth of the Platte.

Spartina gracilis Trin.?

(No label.)

Pinus ponderosa Dougl.

October 1, 1805. In Canoe Camp, on the main Kooskooskee, at the mouth of its north fork, or Chopunnish River of L. & C.

Juniperus communis L.

October 17, 1804. On the Missouri, a little below Cannonball River—same place as *Psoralea argophylla.*

Juniperus occidentalis Hook. *J. excelsa* Pursh, Fl. 647.

October 2, 1804. In the Little or Lookout Bend of the Missouri, at or near mouth of Big Cheyenne River.

Juniperus sabina procumbens Pursh, Fl. 647.

October 16, 1804. On the Missouri at or near Fort Yates, North Dakota. This is far from being "within the Rocky Mountains," Pursh.

Equisetum arvense L.

August 10, 1804. On the Missouri, above Little Sioux and below Big Sioux River; Monona Co., Iowa, on the right hand going up; Burt and Blackbird Counties, Nebraska, on the left.

Aspidium spinulosum Sw.

June 20, 1806. "Fort Clatsop;" but date impossible, as L. & C. were on the Lo Lo Trail in Idaho at this date. Probably "June" is here in error for *January.*

Lomaria spicant Desv. *Blechnum boreale* Pursh, Fl. 669, nec Willd.

June 20, 1806. "Fort Clatsop;" impossible; see last.

Hypnum oreganum Sull.

June 20, 1806. "Fort Clatsop;" impossible; see *Aspidium spinulosum.*

Bazzania trilobata (L.). S. F. Gray.

July 1, 1806. Mouth of Traveller's Rest Creek, or Lou Lou Fork of Bitter-Root River.

Egregia menziesi (Turn.) Aresch. (*Phyllospora menziesi.*)

November 17, 1805. Mouth of the Columbia River.

Sorbus microcarpa Pursh.

September 4, 1805, and June 27, 1806. Two different specimens, as well as dates, may be in question. In any event, on September 4, 1805, L. & C. passed over the Bitter-root range from Idaho into Montana, from Fish Creek, the north fork of Salmon River, to Ross' Hole, near the head of the east fork of the Bitter-root River; and on June 27, 1806, they were on the Lo Lo Trail, in the Bitter-root Mountains, nearing its east end, about to pass from Idaho into Montana, but at a place 100 miles or more distant from the other. The two situations, however, I should suppose to be practically identical, from a botanical standpoint.

(Label only.)

April 14, 1806. On the Columbia, one day below Rock Fort Camp.

Phlox speciosa Pursh, Fl. 149.

May 7, 1806. Not "on the Plains of the Columbia," as said, but on the main Kooskooskee River, below Camp Chopunnish.